

tronic device 20. Messages that have been sent or received by the user may be stored in the memory 30 of the portable electronic device 20 or some other suitable storage element in the portable electronic device 20. Some or all of the sent and received messages may be stored remotely from the portable electronic device 20 such as in a data store of an associated host system with which the portable electronic device 20 may communicate.

[0026] The software applications may include a device state module 62, a Personal Information Manager (PIM) 64, and/or other programs or applications. The device state module 62 provides persistence, i.e., the device state module 62 ensures that important device data is stored in persistent memory, such as the memory 30, to prevent data loss when the portable electronic device 20 is turned off or loses power.

[0027] The PIM 64 includes functionality for organizing and managing data items of interest to the user, such as, but not limited to, e-mail, contacts, calendar events, voice mails, appointments, and task items. A PIM application has the ability to send and receive data items via the wireless network 100. PIM data items may be seamlessly integrated, synchronized, and updated via the wireless network 100 with the subscriber's corresponding data items stored and/or associated with a host computer system. This functionality creates a mirrored host computer on the portable electronic device 20 with respect to such items, which may be particularly advantageous when the host computer system is the portable electronic device subscriber's office computer system.

[0028] The portable electronic device 20 also includes a connect module 66, and an information technology (IT) policy module 68. The connect module 66 implements the communication protocols that are required for the portable electronic device 20 to communicate with the wireless infrastructure and any host system, such as an enterprise system, with which the portable electronic device 20 is authorized to interface.

[0029] The connect module 66 includes a set of application programming interfaces (APIs) that may be integrated with the portable electronic device 20 to facilitate any number of services associated with the enterprise system to be utilized by the portable electronic device 20. The connect module 66 establishes an end-to-end secure, authenticated communication pipe with the host system. A subset of applications for which access is provided by the connect module 66 may be utilized to pass IT policy commands from the host system to the portable electronic device 20, which may be performed in a wireless or wired manner. These instructions may be passed to the IT policy module 68 to modify the configuration of the portable electronic device 20. Alternatively, the IT policy update may also be performed over a wired connection.

[0030] Other types of software applications may also be installed on the portable electronic device 20. These software applications may be third party applications, which are added after the manufacture of the portable electronic device 20. Examples of third party applications include media players, global position system applications, games, calculators, utilities, and so forth.

[0031] The additional applications may be loaded onto the portable electronic device 20 through the wireless network 100, the auxiliary I/O subsystem 36, the data port 38, the short-range communications subsystem 44, and/or any other suitable device subsystem 46. This flexibility in application installation increases the functionality of the portable electronic device 20 and may provide enhanced on-device func-

tions, communication-related functions, or both. For example, secure communication applications may enable electronic commerce functions and other such financial transactions to be performed using the portable electronic device 20.

[0032] The data port 38 enables a subscriber to set preferences through an external device or software application and extends the capabilities of the portable electronic device 20 by providing for information or software downloads to the portable electronic device 20 other than through a wireless communication network. The alternate download path may, for example, be utilized to load an encryption key onto the portable electronic device 20 through a direct and thus reliable and trusted connection to provide secure device communication.

[0033] The data port 38 may be any suitable port that enables data communication between the portable electronic device 20 and another computing device. The data port 38 may be a serial or a parallel port. In some instances, the data port 38 may be a USB port that includes data lines for data transfer and a supply line that may provide a charging current to charge the battery 54 of the portable electronic device 20.

[0034] The short-range communications subsystem 44 provides for communication between the portable electronic device 20 and different systems or devices, without the use of the wireless network 100. For example, the short-range communications subsystem 44 may include an infrared device and associated circuits and components for short-range communication. Examples of short-range communication standards include standards developed by the Infrared Data Association (IrDA), Bluetooth, and the 802.11 family of standards developed by IEEE.

[0035] A received signal such as a text message, an e-mail message, or web page download is processed by the communication subsystem 24 and input to the processor 22. The processor 22 processes the received signal for output to the display 32 or alternatively to the auxiliary I/O subsystem 36. A subscriber may compose data items, such as e-mail messages, utilizing the touch-sensitive display 33, and possibly the auxiliary I/O subsystem 36. The auxiliary subsystem 36 may include devices such as: a mouse, track ball, infrared fingerprint detector, or a roller wheel with dynamic button pressing capability. A composed item may be transmitted over the wireless network 100 through the communication subsystem 24.

[0036] For voice communications, the overall operation of the portable electronic device 20 is substantially similar, except that the received signals are output to the speaker 40, and signals for transmission are generated by the microphone 42. Alternative voice or audio I/O subsystems, such as a voice message recording subsystem, may also be implemented on the portable electronic device 20. Although voice or audio signal output is accomplished primarily through the speaker 40, the display 32 may also be utilized to provide additional information such as the identity of a calling party, duration of a voice call, or other voice call related information.

[0037] The portable electronic device 20 comprises a housing 70 that includes a bottom 72, a frame 74, and sidewalls 76 is shown in FIG. 2 and FIG. 3. The housing 70 may include one or more pieces, for example, formed by injection molding or other processes. The touch-sensitive display 33 is shown disposed within the housing 70 near the frame 74. The touch-sensitive display 33 may be movable with respect to the housing 70. The frame 74 is sized and shaped to provide an